1 IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS 2 TYLER DIVISION 3 CELLULAR COMMUNICATIONS 4 EQUIPMENT, LLC) DOCKET NO. 6:14cv251 5 -vs-6 Tyler, Texas 1:30 p.m. 7 APPLE INC., ET AL September 8, 2016 8 TRANSCRIPT OF TRIAL 9 AFTERNOON SESSION BEFORE THE HONORABLE K. NICOLE MITCHELL, 10 UNITED STATES MAGISTRATE JUDGE 11 APPEARANCES FOR THE PLAINTIFF: 12 13 MR. BRADLEY W. CALDWELL MR. JOHN AUSTIN CURRY CALDWELL CASSADY & CURRY 14 2101 Cedar Springs Rd., Suite 1000 15 Dallas, Texas 75201 MR. EDWARD R. NELSON III 16 NELSON BUMGARDNER PC 3131 West 7th Street, Suite 300 17 Fort Worth, Texas 76107 18 MR. J. WESLEY HILL 19 WARD, SMITH & HILL PLLC 1507 Bill Owens Parkway Longview, Texas 75604 20 21 COURT REPORTER: MS. CHRISTINA L. BICKHAM, CRR, RMR 22 FEDERAL OFFICIAL COURT REPORTER 300 Willow, Ste. 221 23 Beaumont, Texas 77701 24 Proceedings taken by Machine Stenotype; transcript was 25 produced by a Computer.

FOR THE DEFENDANTS: 1 2 MR. DOUGLAS E. LUMISH 3 MR. JEFFREY G. HOMRIG MS. LISA K. NGUYEN 4 MR. BRETT M. SANDFORD LATHAM & WATKINS LLP 5 140 Scott Dr. Menlo Park, California 94025-1008 6 7 MR. JOSEPH H. LEE LATHAM & WATKINS LLP 650 Town Center Drive, 20th Floor 8 Costa Mesa, California 92626-1925 9 10 MR. ERIC H. FINDLAY FINDLAY CRAFT PC 11 102 N. College Avenue, Suite 900 Tyler, Texas 75702 12 13 ********* 14 15 PROCEEDINGS 16 (Jury out.) 17 THE COURT: I understand we've got something to 18 take up before we bring the jury in. 19 MR. LUMISH: Just briefly, Your Honor. We were hoping to get some guidance from the Court. 20 21 We anticipate that CCE is likely to rest either 22 today or early in the morning tomorrow. I wanted to get 23 guidance from Your Honor on how you would like us to proceed 24 on 50(a) motions, whether we would just file them in paper at 25 some point before the jury gets the case, or if you'd like to

hear an oral recitation today. Just looking for some guidance on that, if I may.

THE COURT: I'm fine with written submissions. I'm also fine to hear oral argument on them. I just would like to do it at 5:00. And I will say on the record, you won't waive anything by not doing it at the instant they rest. But we'll carry those. If you would like to make oral argument on the motions, we'll do it at 5:00.

MR. LUMISH: Thank you, Your Honor.

THE COURT: Anything else?

MR. HOMRIG: Yes, Your Honor.

There's one issue with that designation as to Mr. Matthias Sauer. That's unresolved. Specifically, there were designations back and forth according to the protocol.

In the final one that we got back, some of our counters had been removed. And it's on us, Your Honor. We didn't catch it right away. So we sent them back and said: Well, we drop our objections.

But there's one that we wanted to raise. The argument is that it violates MIL 9, which is Your Honor's ruling that witnesses cannot give an opinion about infringement and the reasons for infringement or non-infringement.

So what the question and answer is, is Mr. Sauer was asked: Does Apple infringe CCE's patents?

He responded: I don't believe we do.

So we don't think that violates MIL 9, but here's why it's important: Because what they want to play are questions of Mr. Sauer about why he didn't instruct people not to infringe the patents to set up the issue of, well, Apple says -- and they have some testimony from him -- that, you know, Apple has patents and treats patents with respect.

But then they want to play this thing of why didn't he instruct people not to infringe, but then cut out his belief that we don't infringe.

And so we're fine if it all comes out. We're fine if he puts it in. We've prepared a clip that we can play at the end so that we can use their clips, if they want to play it today, but we don't think it should be that one-sided situation.

THE COURT: Response?

MR. MCMANIS: Good afternoon, Your Honor.

This is actually the first I've heard explanation of this objection. We thought we had a deal last night.

So I think, if the request is just to strike Page 16, Lines 9 through 12, "Have you instructed anyone at Apple to do anything to try not to infringe," we would be okay with that.

The next Q and A, 16, 13 through 19 about whether or not Apple has changed the way its products operates since

1 the suit was filed, we still think that's improper, and that 2 should be pled. 3 MR. HOMRIG: We appreciate that offer. I think 4 that resolves most of it. I do think that with the remaining 5 question, the suggestion in the question is that there should 6 have been something to change. So we think it should stay 7 in. But if Your Honor finds that that's all right and 8 would resolve the issue, we're okay with that, I think. 9 10 THE COURT: Okay. So the 13 through 19, Plaintiffs 11 you want that out as well? Is that what you're saying? 12 MR. MCMANIS: Your Honor, we would leave 13 through 13 19 in --14 THE COURT: Okay. 15 MR. MCMANIS: -- and take out 9 through 12. THE COURT: Okay. And, Mr. Homrig, you want --16 17 That's right, Your Honor. MR. HOMRIG: 18 So, as Mr. Findlay points out, the suggestion in 13 to 19 is that there was some reason we should have changed. 19 20 So, although taking out 9 to 12 helps, we still 21 believe that the answer as to whether Mr. Matthias Sauer 22 believes that there's infringement, should stay in because that's not an opinion that violates MIL 9. It's his personal 23 24 belief. And so that should stay in. 25 THE COURT: Okay. I'm going to take out 9 through

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     12 and take out the ultimate question on "we don't believe we
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     infringe, and you can keep in, Plaintiff, 13 through 19; is
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     that correct?
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               MR. MCMANIS: Yes, Your Honor.
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               THE COURT: All right.
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               MR. HOMRIG:
                            Thank you, Your Honor.
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               THE COURT: You're welcome.
               Is that it?
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               Let's bring in the jury.
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               COURT SECURITY OFFICER: All rise for the jury.
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               (Jury in.)
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               THE COURT: Mr. Curry, you may continue.
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               MR. CURRY: Thank you, Your Honor.
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          PHILIP GREEN, PLAINTIFF'S WITNESS, PREVIOUSLY SWORN
                      DIRECT EXAMINATION CONTINUED
15
     BY MR. CURRY:
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17
          Good afternoon.
     Ο.
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          Good afternoon.
     Α.
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          Still under oath.
     Ο.
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          Yes, sir.
     Α.
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          Okay. So, before we broke for lunch, you were taking us
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     through the rules for calculating damages in patent
     infringement cases. And you showed us the statute.
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          Can you now turn to Slide 14 and explain what you're
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     showing here?
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Sure. Α.

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So, in order to be able to figure out what the reasonable royalty is, the amount of it and the terms, when -- the second rule that I have to deal with is something called a hypothetical negotiation.

And what this is -- all about is imagining what would have happened, what this slide shows, if NSN, on the one side, got together with Apple to negotiate a license to use the '820 patent.

- Is the hypothetical negotiation something you just made up?
- 12 No, sir. It's part of the case law and the other parts Α. 13 of the rules that I have to follow.
- And could you, please, describe a little bit more what 14 15 you mean by a hypothetical negotiation?
- Well, a hypothetical negotiation is essentially, like I Α. 17 said, trying to imagine that NSN, on the one side, and Apple 18 got together to negotiate a patent license.

Because we're all here in this courtroom, we know that it hasn't happened; and that's why it's called hypothetical.

- Why is NSN and not CCE at the hypothetical negotiation Ο. table?
- Well, NSN is at the hypothetical negotiation table because, at the time of the hypothetical negotiation, the rule is it's supposed to happen when the infringement first

began.

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The infringement really first began with one of the Apple iPads, which is accused of infringement in this case.

And that was first sold in March of 2012. At that time, NSN was still the owner of the '820 patent.

In other words, the transaction with CCE and Acacia had not yet occurred.

- Q. Well, how is it, then, that the damages are up to CCE in this case and not to NSN?
- A. As I understand it, there's a lot of lawyers involved in that part of the process. CCE is the successor, essentially, to NSN for purposes of collecting damages on the '820 patent.
- Q. Are there differences between real-world negotiations and the hypothetical negotiation?
- 15 A. Yes, there are.
- 16 | Q. What are those?
- 17 \parallel A. Those are really on my next slide.

This is really, again, part of the rules of thinking
about this negotiation between NSN or CCE, on the one side,
and Apple, on the other side, and sort of the differences
between the way the world really works and what we have to
think about here.

- Q. Okay. So could you explain some of the differences that you're showing on this slide, sir?
- 25 A. Sure.

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The first difference, which is really the subject of the first bullet point on either side, is that in a real-world negotiation, one of the things that typically drives the discussion in my experience is a discussion of whether the patents that are being licensed are valid and infringed.

In other words, when you're sitting at a negotiation table with -- in a normal license negotiation, nobody knows that, and in point of fact, the parties typically really talk about that issue over and over again. One party says they do infringe. The other one says no. It's just a big fight.

In the hypothetical negotiation, that's not what happens. The assumption is that the patent is already found to be valid and infringed. Essentially, you-all have made that decision.

- Q. And I also see that in a real-world negotiation, you're showing that the parties don't need to strike a deal, and they can walk away. How does that compare to the hypothetical negotiation?
- A. Well, again, in a real-world negotiation -- and all of us have experienced this, whether we've ever bought a car or negotiated for renting a house or something, if we don't like the terms, we can walk away. We don't have to do the deal.

In the hypothetical negotiation, the parties actually have to come to agreement. There's no walkaway provision.

They have to come up with some kind of compensation for the

use of the patented technology.

- Q. And I see that in the hypothetical negotiation, you're showing that the cards are face up. What do you mean by that?
- A. Well, what I mean by that is -- and this kind of goes back to negotiating with a car dealer or, you know, renting a place -- you don't know what the landlord or the car dealer is thinking. That discussion with the manager or whatever, we don't know what's going on.

But in a hypothetical negotiation, both parties know each other's business. You've got the financials. You have the information from both sides.

- Q. And, finally, can you explain the difference in the real-world negotiation where the future is unknown versus what you're showing in the hypothetical negotiation?
- A. Sure.

In most negotiations that any of us have been in, we don't know what's going to happen in the future. The car may run; the apartment may not be what we wanted it to be, whatever the negotiation was about.

However, with this hypothetical negotiation, here we are in 2016 talking about a negotiation that happened in 2012. We know about other facts that happened in the ensuing four years, and we're allowed to use those in the hypothetical negotiation.

- 1 \parallel Q. Okay. So you've set up the hypothetical negotiation.
- 2 Are there any rules as to what the parties in a hypothetical
- 3 | negotiation can discuss as they negotiate a royalty?
- 4 A. Yes, there are. And we're not going to go through this
- 5 | list in any detail, but this is a set of rules called
- 6 Georgia-Pacific.
- 7 And Georgia-Pacific, as many of us know, they make paper
- 8 | and plywood and all kinds of things. This set of rules comes
- 9 | from a very old case, and what it's talking about are facts
- 10 or factors that people could talk about at the hypothetical
- 11 | negotiation.
- 12 They can talk about licenses. They talk about
- 13 | competition. They talk about profits. They talk about what
- 14 | the patents do. They talk about a variety of different
- 15 | things. And that's what these factors are.
- 16 Now, there's other things they can talk about. This is
- 17 | not what they say exclusively, but it is a list of what often
- 18 | is focused on.
- 19 | Q. And do patent damages experts like yourself and even
- 20 those retained by Defendants, consider the Georgia-Pacific
- 21 | Factors?
- 22 A. Yes, they do.
- 23 Q. Well, let's look at Factor 9: Advantages of the
- 24 substitutes.
- 25 Have you been in court the entirety of the trial?

- A. Yes, sir, I have.
- 2 Q. Did you hear Mr. Sebire testify that his invention is in
- 3 | LTE?

- A. Yes, I did.
- 5 Q. Okay. Well, if you use LTE, thereby using Mr. Sebire's
- 6 | invention, would it not be the case that you couldn't use LTE
- 7 | without using his invention?
- 8 A. Well, yeah. If you were thinking that the '820 patent
- 9 | is actually a standard that somebody -- everybody has to
- 10 practice it in an LTE phone, that's how the parties to these
- 11 | standard setting organizations work. Everybody wants to make
- 12 sure that one -- everybody uses the same particular way of
- 13 doing buffer status reporting, then everybody has to use that
- 14 | technology; and you don't really think about Georgia-Pacific
- 15 | Factor 9, the advantages.
- 16 Q. Okay. Well, my question is more like, if the substitute
- 17 \parallel is not using LTE, then does Apple have to pay the entirety of
- 18 | the value of LTE in this case?
- 19 A. No, it doesn't. It only has to pay for the value of
- 20 what it's using.
- 21 | Q. And is there another type of rules that apply in that
- 22 | situation involving standards?
- 23 A. Yes, sir, there are.
- 24 \ Q. What are you showing on Slide 17?
- 25 \parallel A. Well, the rules that relate to what you do with a

license relating to a standard is called FRAND, F-R-A-N-D.

And FRAND stands for fair, reasonable, and non-discriminatory. And, basically, what it means is that you're trying to find a royalty rate that would apply to everybody regardless of whether or not they're your competitor.

In other words, often enough, a competitor won't try and license another competitor. You can't do that here. FRAND is fair, reasonable, and nondiscriminatory to everybody.

- Q. Going back to the Georgia-Pacific Factors, are there certain factors that have more weight or are more helpful in this case?
- 13 A. Yes, there are.

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- Q. And what are those?
- A. Well, those would be the licensing, CCE's licenses and some that are considered with respect to Apple, some things that relate to the nature and scope of the license, some customary industry royalty rates that I need to talk about or terms, and then some other things that are just part of the overall Georgia-Pacific process.
 - Q. Can you put these factors into a special formula to calculate a royalty?
- 23 A. No, sir, you can't.
- 24 | Q. Why not?
- 25 A. Well, a royalty in a patent infringement case typically

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comes from this hypothetical negotiation. And all of us who have ever been part of a negotiation know that it doesn't -- you don't walk into a car dealer and think, well, I'm going to pay exactly this amount of money. Usually there's some up and down on it, or, you know, sometimes you can negotiate with a landlord on it. going to be some up and down on it. You know a little bit about -- you know what you want to pay, and you may have a starting point, but you don't necessarily know how it's going to work out. That's what a negotiation is. 12 So, in your Georgia-Pacific Factor analysis, where did 13 you start? Well, I started with considering the other licenses for 14 the '820 patent. Q. Okay. MR. CURRY: And I think, at this point, we need to 18 seal the courtroom, Your Honor. 19 THE COURT: All right. The courtroom is going to be sealed now. If you're not covered by the protective 21 order, please exit the courtroom. 22 (Courtroom sealed.)

23 (This portion of the transcript is sealed and filed 24 under separate cover as Sealed Portion No. 7.) 25 (Courtroom unsealed.)

1 Ms. Mayes, if you'll let everyone back in, please.
2 Thank you, Mr. Curry.

- Q. (By Mr. Curry) Mr. Green, would you move to the next slide, please?
- A. Sure.

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- Q. After you determined comparability in Step 1, remind us what you did in Step 2.
- A. So in Step 2, what I did is I figured out how much of the lump sum that was paid -- we saw that NEC had paid about \$417,000 and Amazon had paid \$350,000 -- how much of those payments were related to rights in the U.S. versus those in other places, like Amazon had rights in Europe and NEC had rights in Japan.

And so when I did that analysis, I came then to figure out that, for NEC, the value of the rights to the U.S. portfolio were a dollar three per unit.

In other words, all of the patents that they got rights to amounted to a dollar three -- \$1.03 per Amazon unit -- excuse me -- NEC units sold in the United States.

And for Amazon, the rate ranged to between 37 and 49 cents per unit for the portfolio, for all of the patents that CCE had in the U.S. that were relevant to the negotiation.

- Q. And then can you explain your calculations in Step 3, please.
- 25 A. Yes, sir.

Then what I had to do was figure out what was paid for the '820 patent. So Step 2 was the portfolio. There's more than just the '820 patent that was negotiated as part of these U.S. portfolios. And so what I did is I had to find out from the \$1.03, for example, what portion of that related to the '820 patent.

And so there's a number of indicators that are in the documents. One of them, for example, is which of the patents had been asserted against -- by CCE as against NEC, because as I told you, they had originally sued them. And so that would be one way of being able to figure out what portion of the portfolio relates just to the '820 patent. So I looked at that.

Another way of looking at it was to look at what patents CCE had actually asserted just in the United States. Those are the important ones in the portfolio.

And so that's why you have these ranges. One is, you know, 10 to 15 cents for NEC, and Amazon, it's 9 cents to 24 cents, depending on how you look at things.

- Q. After you calculated the per-unit rates in Step 3, what did you do next in your analysis?
- A. Well, what I did is I started looking around at what happened in the hypothetical negotiation. So I realized that two values -- these values that I got for the NEC -- from the NEC and the Amazon licenses were basically starting points.

So, like I say, when we go into negotiations, we usually think about, well, I only want to be able to pay about this much. We have some ideas about what those should be.

These are starting points for the negotiation, based on the licenses that CCE had actually already done; and these really are the prices that they had been getting for the use of the '820 patent.

And so from here, what I need to figure out is, well, what would the parties really negotiate to? Let's go back to putting our hypothetical negotiation hats on and figure out what else is going to affect that negotiation.

- 12 Q. In your opinion, does the evidence support a jury award 13 for 9 cents a device?
 - A. Well, that would be one piece that -- one way that the jury could interpret this. They could say that the parties would have started at 9 cents. Sure.
 - Q. And in your opinion, would the evidence support a jury award of 24 cents per device?
- 19 A. Sure. You can see that part of the analysis gets you to 20 24 cents.
 - Q. And do you actually have an opinion as to where you believe that Apple and CCE would arrive or converge in this range?
- 24 | A. Yes, I do.

 \parallel Q. And what is that?

A. That's the 15 cents that I talked about when we started -- started talking about the damages.

- Q. And you mentioned also that the parties in the hypothetical negotiation are going to be considering other negotiating points. What are those?
 - A. Well, these are other things that would basically help us to understand how to close this range between 10 cents and 24 cents effectively, or 9 cents and 24 cents, how do we figure out what the parties would come to. And so there's other facts that we would need to consider.

One is basically that CCE is going to wind up getting a -- giving Apple a nonexclusive license. So, basically, all of these other licenses are also nonexclusive. But that's an important factor. They're not getting exclusive rights to use the '820 patent. Exclusive rights are very valuable, usually.

Also, there's another factor. When I talk about factors, this is referring to the Georgia-Pacific factors that we -- that I showed you earlier.

Factor No. 2 is Apple's patent license agreements. I looked at them. Apple didn't really have any comparable license agreements of its own for comparable technologies that at least I was provided with.

I could see that Apple has taken running royalty licenses in certain circumstances, but they didn't have any

licenses that I could then analyze just like I did the CCE ones and give you some alternative rates for them.

Q. I want to talk a little bit about Factor 12.

You're showing industry volume discounts. What do you mean by that?

A. Well, what I mean by that is that in the electronics industry, especially in this industry that's related to phones and electronics and so forth, there is often licensing that has got a price for a certain number of units; and then, often enough, there's a lower price if you have a larger number of units when you're talking about licensing a patent.

So it may be, you know, 20 cents a unit if you have a hundred thousand units; and then if you've got 200,000 units, it goes down to 15 cents a unit.

Rarely, though, does it take the license -- the -- actually, I've never seen one where the discount is for higher volumes that's greater than about 40 percent or 50 percent. You never see a cut below that for a running royalty on a per-unit basis.

- Q. How does it make sense that a company that infringes more, gets a better deal?
- A. Well, I'm not sure that those companies are actually infringing more. They have actually gone and taken licenses; and they have agreed that since they have higher volumes, they are going to pay less. That's part of the advantage of

- actually having taken a license.
- Q. And earlier you described the differences between the real-world negotiation and a hypothetical negotiation. Would
- 4 | those differences also affect the negotiations?
- 5 A. Yes, they would.

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- Q. All right. Please tell us how.
- Well, one of the reasons -- we talked about how the 7 volume discounts on the one hand would affect a hypothetical 8 9 negotiation. But then in the hypothetical negotiation we know that there's validity and infringement that are going to 10 11 be assumed. And so what that means is that even though there may be some indicators in these licenses that -- of the 12 13 royalty rates, none of these licenses actually had anybody admit to validity and infringement. 14

So all of these prices don't assume this very big difference between the hypothetical negotiation and the real world, which is that the '820 patent is valid and infringed.

Generally, if a patent is valid and infringed, the royalty rate is higher. The entity has to take a license. It's using the technology.

- Q. In the real world can a company use its defenses of noninfringement and invalidity as leverage to drive down the rate?
- 24 A. Yes, sir, they can.
- 25 Q. Can they do that in the hypothetical negotiation?

- 1 A. No, they can't. That's part of the construct, actually.
- 2 | That's one of the key differences here.
- 3 | Q. And is that why you're showing the green arrow moving
- 4 | toward -- more towards the 24-cent side?
- $5 \parallel A$. Yes, sir.
- 6 Q. And what did you conclude that the parties would arrive
- 7 | at in this range?
- 8 A. I concluded that the parties would arrive at a royalty
- 9 | rate of 15 cents a unit. It's in the middle of, effectively,
- 10 the Amazon rate. It's a very -- at the very high end of the
- 11 | NEC rates, but it's consistent with what the actual licensing
- 12 | has been. And when you start to look at the fact that none
- 13 of these licenses assumed validity and infringement and
- 14 assume some volume discounts, this would be a fair and
- 15 | reasonable royalty.
- 16 \parallel Q. And after you identify that Apple 15 cents per
- 17 | infringing unit, where you then able to calculate the total
- 18 | amount of unpaid royalties that Apple owed CCE in this case?
- 19 | A. Yes, I was.
- 20 Q. Can you take us through that, please?
- 21 | A. Sure.
- 22 So to be able to calculate the damages in this case, one
- 23 would take a royalty rate and multiply it by the number of
- 24 | accused units. And so what I did is I calculated up the
- 25 | total number of devices that have been accused, the iPad 3's

and 4's, the iPhone 5 -- 5's and 6's. And it turns out that through March of this year there is 184,318,469 units that were sold.

And multiplying those by 15 cents per unit, the royalty rate gets you damages of 27,647,770.

- Q. And is 15 cents per unit also a FRAND rate?
- A. Yes. I think it is.
 - Q. And can you please explain why?
 - A. Well, sure.

This FRAND notion and this FRAND discussion is really something that is trying to make sure that a license -- the royalty rate that's being paid for something that's standard-essential is fair. And there's a lot of different ways to look at it, but one of the ways is to basically separate out the influences of competition in other things and what the royalty rate would be.

And so one thing that we were taking a look at is whether or not the royalty is something they call ex-ante. That's the first part of this slide.

And it's basically to say, well, is this a rate that they would have paid if they knew nothing else about the market and the technology hadn't yet been adopted. It's ex-ante.

And, in my view, because Amazon and NSN were exiting the market, that's kind of what ex-ante is. They don't -- they

- don't have to pay it in the future. They know that there's
 no competition anymore. In point of fact, CCE is not -- and
- 3 | NSN weren't in competition with Apple for the use of this
- 4 | technology. CCE and NSN don't sell smartphones or tablets.
- 5 Q. Could you move your mic closer, please?
- 6 A. Sure.
- Q. And I see on bullet point 3 you're saying that the benefit of the LTE standard did not drive the royalty rate.
- 9 What do you mean by that?
- 10 A. Well, what I mean by that is if you look at what I was
- 11 showing you from the license negotiation, those were all
- 12 about, as we heard Ms. Wagner say, about the geographies, the
- 13 unit volumes, some of the other terms. Whether or not the
- 14 | benefit of LTE was present or not, wasn't part of those
- 15 discussions.
- 16 Q. And did your analysis push the royalty rate outside of
- 17 | the range that others had paid?
- 18 A. No, it doesn't. As you can see, it's consistent with
- 19 | the rates that were paid in the NEC and the Amazon
- 20 agreements.
- 21 Q. And how does volume discounts factor into your FRAND
- 22 | analysis?
- 23 A. What it goes to show you is that, for example, in the
- 24 | Amazon deal there's a -- there's a royalty. It could be as
- 25 much as 24 cents per unit as a royalty. The royalty that

- 1 I've included on the 15 cents is, it's about 40 percent of
- 2 | that -- or excuse me -- 60 percent of that. It's consistent
- 3 | with the discount.
- 4 | Q. All right. Could you please tell the jury what you
- 5 | found in terms of the amount of unpaid royalties that Apple
- 6 owed CCE in this case?
- $7 \parallel A$. Again, the total amount of CCE's damages are
- 8 | \$27,647,770.
- 9 0. Thank you.
- 10 MR. CURRY: Pass the witness.
- 11 A. Through March of this year.
- 12 | THE COURT: All right. Cross-examination.
- MR. FINDLAY: Thank you, your Honor.
- 14 CROSS-EXAMINATION
- 15 BY MR. FINDLAY:
- 16 Q. Good afternoon, Mr. Green.
- 17 | A. Good afternoon.
- 18 \parallel Q. My name is Eric Findlay, and I represent Apple in this
- 19 | case.
- 20 Do you understand that?
- 21 A. Yes, I do.
- 22 | 0. I don't think you and I have ever met before, so it's
- 23 | nice to meet you.
- 24 A. It's nice to meet you, too.
- 25 | Q. Welcome to Tyler.

- A. Thank you.
- 2 0. Excuse me for that.
- 3 Let me -- if I could, I want to start off someplace
- 4 | different than what I had planned on. Is that all right?
- 5 | A. Sure.
- Q. I was here this morning before we broke for lunch. And
- 7 | you were here for Dr. Caloyannides' testimony?
- 8 A. Yes, sir, I was.
- 9 Q. And then you gave a little bit of testimony before we
- 10 broke for the lunch break; isn't that right?
- 11 A. Yes, sir.
- 12 Q. And you said something there that I wanted to talk to
- 13 you about just to start, and then I'll get back with my
- 14 | normal roadmap that I have.
- 15 Let me see if I can find a highlighter.
- 16 Do you remember when -- I think it was under
- 17 | cross-examination -- Mr. Lumish asked Dr. Caloyannides
- 18 | something along the lines of you don't have any testing, or
- 19 you don't have any measurement which can prove to the jury
- 20 | the amount of the alleged improvement that choosing between a
- 21 | long or short buffer status report might give to the LTE
- 22 | network and uplink latency.
- 23 Do you recall that questioning?
- 24 A. I remember that line of questioning, yeah.
- 25 | Q. And you would agree with me, wouldn't you, that

- Dr. Caloyannides basically said: I don't have any testing that can prove that improvement, and I don't have any measurements that can prove that improvement, that alleged improvement.
 - A. That's my recollection of the testimony, too.
- Q. And then I think you -- and I think you said the exact same thing in your opening remarks before we broke for lunch.

And this was questioning by your own counsel: Have you seen anything measuring or quantifying the benefits that are specifically enabled by the '820 patent?

And you said, no, you hadn't, correct?

A. That's correct.

Q. And I think you kind of admitted that as much in your report in this case and also in the deposition that you gave earlier.

Would you agree with that?

- A. I would agree with that, yes.
- Q. So then you said -- or I'm sorry -- your counsel asked:

 Well, how -- well, then how are you able to go about

 determining what a royalty should be in this case?

And then you talked about: In the circumstances where you don't have any detail about the benefit of the specific use of a patent, then what you wind up doing is taking a look at prior licensing history, what the industry might have paid for using the technology and so forth.

Correct?

A. Yes, sir.

a network.

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Q. Okay. So just so we're on the same page, CCE apparently is not going to present, to your knowledge -- and I -- if you don't know, tell me you don't know -- CCE is not going to present to this jury a shred of evidence that can quantify in some tangible way any alleged benefit that choosing between short and long buffer status reports as opposed to sending just long buffer status reports has on uplink performance of

Would you agree with that?

- A. Well, I can tell you I don't know what CCE may present throughout the rest of the trial. I haven't seen any documents or anything that specifically measures or quantifies the benefits, that's for sure.
- Q. And that's fair, and I appreciate that.
- And you have been here since opening statements, correct?
- 19 A. Correct.
 - 0. I appreciate that, Mr. Green. Thank you.
 - So, if we have to -- and it's your testimony, then, that we have to look at the licenses. You would agree with me, though, that there isn't -- and we'll talk about this more in detail later on, but just to make sure we're all on the same page when we start, you would agree with me there isn't one

- license that CCE ever gave to just the '820 patent alone, correct?
 - A. That's right. CCE gave portfolio licenses; and in many instances, you can see from the licenses, specifically Amazon and NEC, that the '820 patent was part of the key drivers.
- Q. Okay. So we don't have -- there is not a single license you can show this jury where it says here, somebody is paying just for the '820 patent, fair?
 - A. That's fair.

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- Q. All right. And would you agree with me that you have no evidence to present to this jury that any company or any individual or any group has ever come to CCE and said: Hey, we read that '820 patent; we would like to take a license just to that patent because we think it improves uplink latency in the LTE network?
 - A. I don't think I've seen a document that talks specifically about the scenario that you're talking about where somebody just walks in and licenses a single patent.

 That's pretty unusual. But I haven't -- I agree. I haven't seen a document like that.
 - Q. So the answer to my question is yes; you haven't seen any evidence like that?
- 23 A. No. I would be shocked to find it, though.
- Q. And, likewise, you haven't seen any evidence that anyone came to Acacia when it owned the '820 patent and said the

- same sort of thing: Hey, we want to take a license to just that patent?
 - A. Right. Again, I would be shocked to find it. Usually these portfolios are licensed as portfolios.
 - Q. Fair enough. And we'll talk about that.

And then as to the original owner of the '820 patent, NSN, again, you don't have any evidence that anyone ever came to NSN and said: That '820 buffer status report patent is really good; I want to take a license just to that patent?

- 10 A. I haven't seen any evidence from NSN about its licensing 11 really at all, so...
- Q. Okay. Fair enough. Thank you for indulging me with those kind of introductory questions. I'll get back into my prepared notes.

15 You've done this lots of times before, I think you said?

16 A. Yes, sir.

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- 17 Q. Testified in trial, how many times do you think?
 - A. At trial, probably over 40 times in my career.
- Q. Okay. And you were up front enough -- and I appreciate that -- to share with the jury that the rate you're getting paid in this case, I think, is \$550 an hour; is that right?
- 22 A. My firm is getting paid, yes.
- 23 | Q. Your firm. I'm sorry. That's right.
- And you would agree that's a pretty -- that's a pretty

 25 healthy rate?

- A. I agree, sure.
- 2 Q. Okay. And you would agree -- and I don't mean anything
- 3 other than just that that's a -- you're well paid for what
- 4 you do. Let me put it that way.
- 5 A. I don't know about that. I mean, I'm able to charge a
- 6 | rate because of the kinds of services and the detail I
- 7 provide. So I'm not sure I can say one way or another.
- 8 Q. Okay. Well, my point is -- and I'm not trying to trick
- 9 you or anything -- that in what you do as an expert witness,
- 10 you're well paid, as is Mr. Bakewell. He'll be up here
- 11 | testifying later on. He's our damages expert. He's well
- 12 | paid.
- 13 We can probably agree on both of those facts; wouldn't
- 14 you say?
- 15 \parallel A. I would say that's true, yeah.
- 16 Q. Okay. And you're correct in pointing out that it's not
- 17 | you that's sending the bill for \$550 an hour; that comes from
- 18 your company, right?
- 19 A. That's right.
- 20 | 0. And you understand that's the same way it works with
- 21 | Mr. Bakewell. Whatever he's charging per hour, that comes
- 22 | from his company, not from him individually, right?
- 23 A. That's right.
- 24 | Q. And you know Mr. Bakewell professionally?
- 25 A. Yes, I do.

- Q. Respect him?
- 2 A. Yes, I do.

- Q. Okay. Your company has worked a lot for Acacia. I
 think the numbers we were given was, since 2008, your company
- 5 | had billed Acacia a little over \$3.5 million.
- 6 Does that sound right?
 - A. Out over the course of four separate matters, yeah.
- 8 Q. Okay. Fair enough.
- And the billings on just CCE matters, I think through

 July of this year, was just shy over \$800,000. Would you

 agree? Does that sound close to right?
- 12 A. Sounds probably close to right. That's right.
- Q. And there's probably more added since then since you've been working hard getting ready for trial?
 - A. Yeah. Not as much as you might think, but yeah.
- Q. Okay. Can we agree that one of the reasons the figures are that big for your company and the figures are that big for Mr. Bakewell's company, I imagine, is because taking a case all the way to a patent trial, like we are here, in
- 20 front of a jury, is an expensive endeavor?
- A. It's an expensive endeavor, but it's also that there
 were other parts of the case which we're not talking about
 here, so...
- 24 \parallel Q. And that's fair, and I appreciate that.
- 25 But you would agree with me that -- I think -- I think

you talked about this in your deposition. The average cost of litigation to take a patent case all the way to trial is

- 3 averaged between 3 and \$5 million. Is that a fair value?
- A. Between all the lawyers and all the experts and all that, that's about what these cases do cost on average, yes.
 - Q. Okay. Good.

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Can you and I agree on -- I hope we can agree on this next statement. Can we agree that as between you and Mr. Bakewell, the things that we should be focusing on is the substance of your testimony, the substance of your opinions, not about the finances as to who was paid what?

- A. I think that's fair, sure.
- Q. Okay. Good. I thought we could agree on that, but I appreciate that. Thank you.

I think your counsel confirmed this, but I just want to go through it with you briefly. You are not here to give this jury any opinion in terms of infringement?

- A. That's right.
- Q. And you're not here to give this jury any opinion in terms of validity?
 - A. That's right.
 - Q. And you would agree with me that if the jury finds that there is no infringement, if the jury believes that Apple is not using the '820 patent, then there are no damages and that number is zero?

- A. Right. My whole analysis assumes that you-all find that the patent -- the '820 patent is valid and infringed. Sure.
 - Q. Okay. Fair enough.
- You know that Apple is a company that makes, among other things, the iPad and the iPhone, makes consumer electronic devices, correct?
- 7 A. That's right.
- Q. And you would agree with me that Apple is an innovative company?
- 10 A. With respect to many of its consumer products, sure.
- 11 Q. Yeah. It's an innovator. I think we can all agree on
- 12 | that?

- 13 A. Yes, sir.
- 14 | Q. All right. Thank you.
- This might be stating the obvious, but you would agree that Apple is not a cellular network operator, correct?
- 17 \parallel A. That's true.
- Q. So I looked at your report and you submitted three reports in this case, I think; is that right?
- 20 | A. That's right.
- Q. And at least in your initial report, I think I saw the word "network operator" over a hundred times. Does that sound -- any reason you would need to quibble with that
- 24 | number?
- 25 A. No. I -- I'd like to answer your question completely.

Q. Please.

A. I understand that there's all kinds of rules with --

3 MR. CURRY: May we approach?

THE COURT: Yes, approach.

A. I just don't want to violate them.

MR. CURRY: Appreciate that.

(Bench conference.)

MR. CURRY: Mr. Findlay is taking advantage of the fact that the carriers were severed and stayed. Back when Mr. Green wrote his original report they hadn't been severed and stayed. And so now he's trying to take a victory lap over him on this because naturally in his original report he's talking about the network operators a lot and the carriers.

MR. FINDLAY: I'm not at all, Your Honor. He's talking -- his slides talk about network operators, equipment manufacturers. And this is obviously about the network. I just want to make it clear. And that's the only question I'm going to ask, that when you talk about network operators in your report, you're not talking about Apple. That's as far as I'm going with it, just one question.

MR. CURRY: My witness should not be penalized for talking about the carriers when the carriers -- and talking about them a lot in his original report, at a time when he wrote his report the carriers were still in this case. And

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knowledge, you're right.

that's what Mr. Findlay's talking about. THE COURT: Let's move on. MR. FINDLAY: Okay. MR. CURRY: Thank you. (Bench conference concluded.) (By Mr. Findlay) You would agree with me that no one from CCE was involved in the '820 patent, correct -- in the development or getting, if you will, of the '820 patent? That's correct. CCE acquired a portfolio that included the '820 patent. And -- I'm sorry. And that includes also no one from Acacia was involved in the '820 patent? Not in its development. Acacia acquired the patent from Α. NSN which developed it. And as I think the jury has heard, Acacia bought the Ο. patent from NSN. Nokia Siemens Network gave it to CCE. And eventually we wound up here. Fair? That's fair. Α. You would agree with me, also, that the '820 patent did Ο. not invent the idea of buffers? That's right. Α. It did not invent the idea of buffer status reports? To my knowledge, that's true. Again, I'm not a technical expert. We've all agreed upon that, so to my

- 1 | Q. But you've spoken to the technical experts?
- 2 A. Correct.
- 3 | Q. And you would agree with me it also didn't invent the
- 4 | idea of a long or short buffer status report?
- 5 A. Not to my knowledge. That's correct.
- 6 Q. And you would agree with me that there are other buffer
- 7 | status reporting patents out there, correct?
- 8 A. I believe there are. That's true.
- 9 Q. Okay. Now, as the jury has heard, the '820 patent has
- 10 to do with uplink capacity, correct?
- 11 A. Yes, sir.
- 12 | Q. And that's when data is going from my phone up to the
- 13 ∥ network?
- 14 A. That's right.
- 15 Q. When something is coming down into my phone, we can call
- 16 ∥ that downlink or download. Do you agree with me?
- 17 A. Yeah. I think downlink is usually how I would refer to
- 18 ∥ it.
- 19 | Q. So if I'm sending a picture to my son at college from my
- 20 | phone, when I -- when it leaves my phone that's an uplink
- 21 | transmission, for us lay folks?
- 22 A. That's right.
- 23 | Q. And then if I'm -- if I'm watching Netflix, I'm watching
- 24 | a show on my phone, I'm streaming it or on my iPad, that's
- 25 | all downlink, correct?

A. That's correct.

- 2 | Q. And would you agree with me that there's more -- a lot
- 3 more downlink traffic out there than there is uplink traffic?
- 4 A. There has historically been that. That's true.
- 5 | Q. And historically that's been the -- that's been the main
- 6 | focus, if you will, on people working on the network is to
- 7 | increase the speed of downlink so you can stream Netflix, you
- 8 can watch movies, download songs, that sort of thing?
- 9 A. Right. That's historically true. It's changing lately,
- 10 to my understanding.
- 11 | Q. Okay. And the '820 patent doesn't have anything at all
- 12 | to do with downlink activity, right?
- 13 A. That's right. It has to do with uplink. Although as I
- 14 | understand it, there is some technical relationships between
- 15 downlink and uplink which are beyond the scope of what I
- 16 | truly understand.
- 17 | O. And they're far beyond mine, too. But the '820 is --
- 18 | it's limited simply to uplink. That's your understanding?
- 19 A. That's correct.
- 20 | Q. And you also agree with me, obviously, that the '820 is
- 21 | limited solely to the LTE network?
- 22 A. That's right.
- 23 | Q. So in Boston I'm going to bet you've got better LTE
- 24 | coverage than we do out here in East Texas; but I can tell
- 25 you there are lots of times if I drive to court in Texarkana,

I'll go through lots of areas where I don't have LTE. There
are some areas where I don't have any cell phone coverage.

And if -- and if that happens and I'm off LTE, that, obviously, means my phone is not using the '820 patent even if we were to -- even if the jury were to believe CCE's infringement allegations, correct?

- A. If I understand your question, I -- all you're asking is, well, there are parts of the country where LTE isn't available. I agree with you. And you would be surprised how bad the cell service is in Boston.
- Q. Fair enough.

And -- and any time that happens, if I look down at my phone and I'm on 3G, or I'm on something other than LTE, that doesn't concern the '820 patent at all. Can we agree on that?

- A. To my knowledge, that's correct.
 - Q. Okay. And would you agree with me that a lot of times when somebody doesn't have LTE -- for instance, in their home -- they might put their phone on a wireless, on a WiFi network.
- A. Yes. I think that's true.
- 22 | Q. Do you have WiFi at your house?
- 23 A. Yes, I do.
- Q. And when you get to the house, does your phone either automatically connect to it, or do you sometimes just take a

- moment and put your phone on WiFi?
- A. It tends to want to automatically connect, yes.
 - Q. Mine does, too.

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- And are you aware that the iPhone actually will do that?

 If it senses an area where it's in a known WiFi network, it

 will automatically connect to that -- connect to the WiFi?

 Is that your understanding?
- 8 A. That is my understanding.
- 9 Q. Okay. And you would agree with me that when your
 10 phone's on WiFi, that's got nothing to do with LTE? And
 11 then, of course, that's got nothing to do with the '820
 12 patent?
- A. Right. Yeah. WiFi is another feature that's in your phone that is part of the overall operation of the phone.

 Yes.
- Q. So and -- that's a good point. But a better way to ask
 my question probably would be, if I'm doing uplink work and
 I'm sending photos uplink or I'm posting something to
 Facebook and I'm on WiFi, because I'm in my house, that's got
 nothing to do with the LTE network and nothing to do with the
 '820 patent. Can we agree on that?
 - A. Usually, that's true. It depends on what's going on in your house. But, yeah, if you're on WiFi you're typically not, to my knowledge, dealing with an LTE network.
- 25 \parallel Q. And is your experience the same as mine in that every

- year it seems to me that there are more and more areas where there is readily WiFi available, free WiFi available?
- A. It depends. Yes. I mean, we're seeing more and more
 WiFi networks when we go into stores and so forth, hotels,
 what have you. But the quality of those networks and what
 your phone can hook into is still kind of a -- it's still not
- Q. No. I would agree with you. Sometimes you might just have two bars instead of the -- you see, I've got -- you see the little WiFi signal there in the corner?

completely reliable, specifically.

A. Yeah.

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- Q. Yeah, I've got four bars in here. I'm on the Court's
 WiFi, but sometimes you might not have the full bars and so
 the connection may not really be fast.
 - A. Right. And then sometimes the connection isn't sufficient to download your e-mail. There's a lot of different things that go on.
 - Q. And I don't disagree with that at all. But in general, would you agree with me it seems every year we find there are more and more places that have free WiFi available to folks?
 - A. I agree with you.
- 22 0. Okay. Thank you.
 - And the reason I asked that is because there was one part in your report -- and if you want to see it, let me know and I'll show it to you -- where you talked about that

- sometimes at -- there could be a bottleneck effect with a cellular network and major events with large crowds. Do you remember that in your report?
 - A. Yes.

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- Q. And I assume there you were talking about things like sporting events or concerts where you've got 80,000 people somewhere, that there could be a lot of traffic on the network -- on the cellular network, and that it could slow things down?
 - A. It can be at major sporting events. It could be there are -- there are places where there's lots of, say, tourists who are taking photos and then they're uploading them into their Facebook and stuff, so it's a -- it's a variety of different circumstances that I understand the carriers are having to plan for and work with these things.
- 16 | Q. Sure.
- Would you agree with me, though, that -- well, let me put it this way: Are you a sports fan?
- 19 A. Sure.
- 20 Q. Cowboys fan by any chance?
- 21 A. Well, I'm living in Boston so...
- 22 | O. Okay. Well, you know, you need to go see Jerry's World.
- 23 A. So I hear.
- Q. Okay. And I've been there, and probably wouldn't surprise you that they've got free WiFi throughout AT&T

Stadium.

- 2 A. Yes, they do.
- 3 | Q. And if you were to be lucky enough to go see a Mavericks
- 4 game at the American Airlines Center in Dallas, same sort of
- 5 | thing.
- 6 A. Correct.
- 7 | Q. And I even looked up -- since I knew you were from
- 8 | Boston, I found an article on Boston.com that said: At least
- 9 Fenway Park has baseball's speediest WiFi.
- 10 A. Considering their sponsorship, yes.
- 11 | Q. Okay. So you would agree with me, in more and more of
- 12 | those places where you find lots of people, like a concert,
- 13 | like a sporting event, there are tons of folks on WiFi.
- 14 Isn't that just fair?
- 15 A. There are tons of folks on WiFi. There are tons of
- 16 \parallel folks that are on -- just using their cellular data as well.
- 17 \parallel So it's a whole mixed bag, as I understand it.
- 18 | Q. But if they're on WiFi, then they're not bottlenecking
- 19 | the LTE network as you were talking about in your report,
- 20 fair?
- 21 | A. Technically fair, but what's -- at least as I understand
- 22 | it; and based on my analysis of going through the industry,
- 23 there's a tremendous number of instances where even around
- 24 | Gillette Stadium or even Fenway, they have put in these
- 25 | little small cell base stations to be able to cover this.

And so there's an awful lot of both WiFi and LTE connectivity inside of sporting events and so forth.

Q. Thank you.

Let me turn a little bit more to the '820, and let me turn to -- do you recall -- let me read you a portion of your report. And if you want to see it, I'll be happy to provide it to you.

You talked about alternatives to infringing, in your report. And you said, quote: According to Mr. Jones and Dr. Caloyannides, a non-infringing alternative would be a reversion to prior methods of buffer status reporting. In this instance, there would be increased latency and no scheduling gain.

Do you recall that?

- A. Yes.
- Q. Okay. Would you agree with me, though, that just in the way we started this examination, where you admitted that there is no evidence or no testing or measuring which can go to prove the amount of the alleged improvement that '820 gives to LTE, similarly, you don't have any testing or any measurement to show that the old way, the reversion way, was slower. Fair?
- A. Well, I don't have -- I haven't seen any testing. I'll give you that. But, logically, it would make sense that if you weren't using these technologies, that they hadn't

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actually been implemented in standards, then you wouldn't be getting these benefits, just logically. Let me break that down a little bit. So you agree on the first part of my question, that there's no evidence or testing or measurement you can point to to suggest that there's a specific improvement in uplink reduced latency. Similarly, there's no testifying -- I mean, there's no testing or measuring which establishes that the old way is X slower. Correct. I haven't seen it yet, but, logically, just understanding the differences in the technologies, it would make sense that it would be slower or would be more use -- it would use more resources in the system. But that opinion comes just from your conversations with Q. Dr. Caloyannides and Mr. Jones; is that fair? Sure, CCE's technical experts. Α. THE COURT: Mr. Findlay? MR. FINDLAY: Yes, ma'am. THE COURT: Whenever we get to a good stopping point, it's about time for our afternoon break. MR. FINDLAY: This will be fine, Your Honor. Thank you.

Ladies and Gentlemen, we'll be in recess for 15

THE COURT: Very good.

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     minutes.
               COURT SECURITY OFFICER: All rise.
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               (Jury out.)
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               (Recess.)
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               (Jury out.)
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               COURT SECURITY OFFICER: All rise.
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               THE COURT: Let's bring in the jury, please.
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               (Jury in.)
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               THE COURT: Please be seated.
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               Continue.
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               MR. FINDLAY: Thank you, Your Honor.
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          (By Mr. Findlay) Welcome back, Mr. Green.
     Q.
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          Thank you. Welcome back.
          I wanted to start off where I started off before real
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     quickly. There was a line of questioning that I meant to
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     raise with you.
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          We've agreed that you are looking at the licenses since
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     there's no testing or measurable evidence to -- to point to
     as to the benefit of the '820, et cetera. We talked about
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     that.
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          But in connection with that, it's true, is it not, that
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     you haven't set forth any opinion which compares -- which
     compares the value of the '820 patent specifically relative
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     to all of the other patents in the CCE portfolio?
          I wouldn't say that. I'd like to answer that question
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more fully, but I think I might be stumbling over something the Judge doesn't want me to talk about. THE COURT: Counsel, approach. (Bench conference.) THE COURT: I would like this witness to stop saying he doesn't want to walk into things the Judge doesn't want him to talk about. MR. CURRY: Okay. I think he's just trying to respect your -- your motion in limine. THE COURT: Okay. MR. CURRY: And I think that the questions are getting into it and so... MR. FINDLAY: This is --MR. CURRY: I mean, my witness is in a bad position. He can either not testify truthfully or violate a ruling in limine. And so we, actually, told him in this scenario to say that, so that we can approach and work it out with the Judge rather than plowing into --MR. FINDLAY: The motion in limine. THE COURT: Yeah. MR. CURRY: Okay. THE REPORTER: I'm sorry. MR. CURRY: So I think that the witness is -- said what he said about Your Honor's rulings because the analysis that he did that identifies the '820 patent, particularly as

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a valuable patent, is contingent upon the -- Apple's IPRs not
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    getting instituted.
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               And so in this scenario I think, you know,
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    Mr. Findlay has opened the door. The witness should be
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    allowed to answer fully and honestly as to what his analysis
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    should be -- or actually is.
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               MR. FINDLAY: Frankly, I don't know what he's --
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    what they're talking about. I was asking -- trying to get
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    him to confirm, as he's testified in deposition, in his
    report that he didn't value the '820 separately from the
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    entire CCE portfolio. That's a classic --
               MR. CURRY: I don't think classic.
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               MR. FINDLAY: -- question.
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               THE COURT: Okay.
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               MR. FINDLAY: I think I know what my question is,
    Mr. Caldwell. That's my question.
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               THE COURT: Okay. He can answer that question
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    presumably, right? Wait.
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               MR. CURRY: Which -- which question? It -- it gets
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    to --
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               MR. FINDLAY: You didn't value the '820 patent
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    relative to all of the other patents in the CCE portfolio.
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               MR. CURRY: He did, though. And he used the denial
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    of the IPR institution as part of that.
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               MR. FINDLAY: Where is that? If you show me where
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he did that -- well, he didn't -- that's not what he said in his deposition. He just said, no, he didn't do it because he was talking about a damages analysis, not a valuing. So I don't understand how this is conflating with the IPR issue. I don't see the connection at all. MR. CURRY: And it is part of his analysis. And, you know, at this point I think --THE COURT: No. We're not getting into it. MR. FINDLAY: All right. THE COURT: So let's figure out how to frame the question in a way that doesn't get into it and that is consistent with his prior testimony. MR. FINDLAY: That's my question. You haven't valued the '820 relative to all of the other patents in the CCE portfolio. That's the only question I'm asking. Then I'm moving on. THE COURT: Okay. Well, and so what is his prior testimony on that? MR. CURRY: He has disclosed that his analysis depends on, in part, how Apple tried to institute the '820 and failed and so that --THE COURT: So he has a place in his report where he values only the '820 patent? MR. CURRY: Let -- let me answer very precisely because it's not that he assigns like a certain weight.

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when he's figuring out which of the patents in that portfolio are the most important. He talks about how there is significant importance for the '820. He doesn't quantify it. Maybe that's the question that Mr. Findlay can ask. MR. FINDLAY: That's the question I'm asking. MR. CURRY: So the question -- the question was had he compared the value of the '820 patent, specifically, relative to the other patents. And so his --MR. FINDLAY: With the CCE portfolio, correct. MR. CURRY: I'm going to finish my point. So I think what he's saying, and the reason that it tripped up the witness, is he said this -- because there's all of the threats of PTAB proceedings and so forth. this one has been twice denied. And so that's why -- I mean, actually we're just trying to make sure that he doesn't step on your orders. THE COURT: Right. MR. CURRY: But the question specifically says, why does this one stand out? Why is it relative to the others? That's what it said. MR. FINDLAY: Respectfully, that's -- that's not what I'm trying to ask him. I'm simply trying to get the point that I think it was clear in his report and his

deposition, that he didn't do an analysis of the '820 value

in comparison to all of the couple hundred patents in the CCE

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portfolio. That's the only point I'm trying to get at, Judge. MR. CURRY: Well --MR. FINDLAY: I don't understand or agree that this conflates with the IPR MIL. MR. CURRY: You can see why our witness got tripped I mean, we -- we read the question. If Mr. Findlay is going to go into this, he needs to be extremely narrow in how he asks the question because, otherwise, our -- our witness does have an answer to this, but it's covered by our ruling. MR. FINDLAY: Where is his answer in the report that says that? You're saying that. Show us where that is. I think that's relevant to this discussion, guys. MR. CURRY: You don't think he talked about the IPR denial of institution in his report? MR. FINDLAY: No, I'm sure he did. My point is I don't remember anything in his report where he said somehow that he couldn't value the '820, relative to the other patents because of that issue. That's what I think you're trying to tell the Judge. And I'm saying, show us in the report where that is. Otherwise, you've got nothing to back up your complaints about my question. MR. CURRY: I'm actually staying focused on the question you asked him and --

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THE COURT: I'm trying to figure out a question he can ask the witness at this point and not get into this objection. MR. CURRY: I think mathematically calculate or something like that. I mean, you know, I think then he can say no, and we can move on. MR. FINDLAY: I'll ask: Did you calculate the value of the '820 patent, relative to the value of the other patents in the portfolio? MR. CURRY: But I think that's still in the box where this one is not relative to others. So that's why I think Mr. Curry's proposal is if it's sort of a quantification thing, that might get you there. But if his point is always this one is higher --THE COURT: Can you just ask him: Did you mathematically calculate the value of the '820 patent relative to the other --MR. FINDLAY: Sure. I'll ask that question. Is that fine? We're not going to argue that's violating something? THE COURT: And then no more, because we're treading closely on the door here. MR. CURRY: And -- and do you want me to advise my witness to stop -- or to proceed in a different way or --THE COURT: I don't think he's acting

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inappropriately.
         MR. CURRY: Okay.
          THE COURT: I just -- I just would like us to stop
getting so close to MILs --
          MR. CURRY: Yeah, I agree.
          THE COURT: -- that trigger him. Okay.
          MR. CURRY: Thank you.
          (Bench conference concluded.)
          MR. FINDLAY: May I proceed, Your Honor?
          THE COURT: You may.
         MR. FINDLAY: Thank you.
     (By Mr. Findlay) Mr. Green, let me rephrase the question
I had.
     Did you do any sort of mathematical calculation to
determine the value of the '820 patent, relative to all of
the other patents within the CCE portfolio?
    So you're asking about whether I did a fair market
valuation of the '820 patent versus other patents. This was
discussed at my deposition. And the answer is, I didn't do a
fair market valuation. There are indicators, however, that
the '820 patent is more valuable than others in the patent
portfolio, which I discussed in my deposition as well.
    Fair enough. Thank you.
Ο.
     Let's talk about lump sum versus running royalties.
     Your opinion that you presented to the jury in this case
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- 1 | is that Apple should pay a running royalty, correct?
- 2 A. Correct.
- 3 | Q. A lump sum refers to a payment which is one time in
- 4 | nature, fully pulled up -- fully paid up. And once that is
- 5 paid, the alleged infringer gets a license to the patent,
- 6 goes on its way, and the parties can part company and never
- 7 have to worry about each other again. Fair?
- $8 \parallel A$. That is one of the ways that a lump sum can be set up.
- 9 Some lump sums are for a period of time, so...
- 10 | Q. Okay.
- 11 \parallel A. With that exception.
- 12 | Q. And I don't know if you said this in your direct
- 13 | testimony or not, but the Sharp agreement, was that
- 14 | running -- running royalty or a lump-sum agreement?
- 15 \parallel A. That was a lump-sum agreement. All of the -- I think I
- 16 | testified that all of the agreements, all seven licenses,
- 17 were lump sums or had been calculated to lump sums.
- 18 \parallel Q. So every license that CCE has entered for its portfolio,
- 19 | including the '820, patent has been done on a lump-sum basis,
- 20 correct?
- 21 | A. The agreements came down to lump sums. There's
- 22 | indications, as I testified, that the lump sums were based on
- 23 counting up units or the -- and then calculating what a lump
- 24 sum would be based on those units.
- 25 | Q. But that's -- and I'm not trying to fuss at you, but

- 1 that's a long way of saying we agree all of the other license
- 2 | agreements to the CCE portfolio, which included the '820
- 3 patent, are lump-sum agreements. Fair?
- 4 A. They came down to lump sums. A lump sum can have a lot
- 5 of different meanings when you're looking at how license
- 6 agreements go together and what the parties are talking
- 7 about.
- 8 Q. So I think we agree. Do we agree? Lump sum?
- 9 A. With a caveat, yes.
- 10 \parallel Q. Fair enough. I'll take the caveat. Fair enough.
- 11 | And you're aware, are you not, that CCE's policy is that
- 12 | it is fine with a lump sum or a running royalty and really
- 13 doesn't have a preference. Fair?
- 14 A. I think that's fair with respect to its licensing
- 15 ∥ practices, yes.
- 16 | Q. And you were here in the courtroom when Ms. Wagner
- 17 | testified, were you not?
- 18 | A. Yes, I was.
- 19 Q. And you heard her say something to that effect in
- 20 | response to questions, that they were fine with a lump-sum
- 21 agreement, correct?
- 22 | A. I don't recall her necessarily saying that, but I know
- 23 | that to be true.
- 24 | Q. Okay. Did you read Ms. Wagner's deposition in this case
- 25 | that was taken?

- A. Yes, sir.
- 2 | Q. And do you remember in her deposition where she talked
- 3 | about and admitted that lump-sum agreements have certain
- 4 | advantages, like the fact that you're paid all up front, you
- 5 don't have to worry about the other party going out of
- 6 | business or not paying you, and that a lump sum can save on
- 7 | things like reporting obligations and expenses? Do you
- 8 remember that testimony?
- 9 A. I do remember that testimony.
- 10 Q. Now, I don't want you to tell me what the number is
- 11 | until we close the courtroom, which we will be in a few
- 12 minutes, but you did provide a lump-sum opinion for Apple in
- 13 your expert report, correct?
- 14 | A. Yes, I did.
- 15 | Q. And that is -- and, again, we'll tell the jury what it
- 16 | is when we seal the courtroom. But that lump sum is an
- 17 | amount that would be a one-time payment which Apple would
- 18 | then have to make no other payments, free to go about its
- 19 way, correct?
- 20 A. That's correct.
- 21 | Q. And it's your opinion that that is a reasonable amount
- 22 | that you set forth as an alternative opinion in your report,
- 23 | correct?
- 24 A. That's true.
- 25 Q. Okay. Would you agree with me -- with this general

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statement, that although you and I may disagree on the facts of the case and how they play out or what side they support or don't support, would you agree with me that it's important for us to give the jury all the facts we can, so that they can come to their decision? Oh, absolutely. I would agree with that. Α. Would you agree with me that neither you nor I would Ο. want to hide relevant facts from the jury? I think that's true, too, yes. And would you agree with me that you certainly would not want the jury to think that you were hiding relevant facts from them? 12 That's true, too. Α. Q. Okay. MR. FINDLAY: Your Honor, at this time, I do think we'll need to seal the courtroom. THE COURT: All right. Let's seal the courtroom. If you're not covered by the protective order, please exit. (Courtroom sealed.) (This portion of the transcript is sealed and filed under separate cover as Sealed Portion No. 8.) (Courtroom unsealed.) MR. NELSON: And, Your Honor, we have three short video clips before our last live witness.

And the first one is Ms. Supriya Gujral. And she

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is the director of partner marketing at Apple.
          (Video clip playing.)
          QUESTION: Please state your name.
                   Supriya Gujral.
          ANSWER:
          QUESTION: And, Ms. Gujral, who do you work for?
          ANSWER: I work for Apple.
          QUESTION: And what is your title at Apple?
                  My title is director of partner marketing.
          QUESTION: Ms. Gujral, do you understand that
you've been sworn to testify truthfully and to the best of
your ability just as if you were in court in front of a jury
today?
          ANSWER: Yes.
          QUESTION: Is battery life important to Apple's
customers -- Apple's iPhone customers?
         ANSWER: Yes.
         QUESTION: Why do you say battery life is important
to Apple's iPhone customers?
          ANSWER: Only because you would want to keep your
phone running all day long.
          (Video clip ended.)
          MR. NELSON: Your Honor, the next short video clip
will be Mr. Matthias Sauer, and he's the director of cellular
hardware and architecture at Apple.
          (Video clip playing.)
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QUESTION: Sir, please state your name.
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               ANSWER: My name is Matthias Sauer.
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               QUESTION: You're an inventor on two patents; is
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     that correct?
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               ANSWER: I'm, I think, currently on two and a
 6
    number of pending.
 7
               QUESTION: Do you think it's worse to infringe a
     large company's patent or a small company's patent?
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               ANSWER: I don't think it depends on the size.
               QUESTION: Does Apple respect intellectual
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    property?
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               ANSWER: Yes.
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               QUESTION: Has Apple changed the way it does things
    or any of its technology in response to filing this lawsuit?
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               ANSWER:
                        I'm -- I'm not aware of that. I don't
    know. I do not know that.
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               QUESTION: What's your educational background?
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               ANSWER: I received training as electrical engineer
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     in Germany and finished that with a diploma degree, which is
20
    somewhat equivalent to master's degree, and continued on with
21
    a -- with a Ph.D. in electrical engineering.
22
               QUESTION: And where did you attain your Ph.D. in
23
    electrical engineering?
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               ANSWER: Technical University of Munich, Germany.
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               QUESTION: And when were you awarded the Ph.D.?
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1 It was in 1994. ANSWER: 2 QUESTION: Did you start working in industry after 3 that? 4 ANSWER: No. I did a few more years of research, academic research, as a post-doc first in Gothenburg, Sweden, 5 and afterwards at the University -- excuse me -- University 6 7 of Oxford. 8 QUESTION: And what was your post-doctoral research 9 in? 10 ANSWER: It was in formal methods for hardware 11 design. 12 OUESTION: You said formal methods --13 ANSWER: Yes. 14 QUESTION: -- for hardware design? 15 ANSWER: Hardware design, yes. QUESTION: What does that mean? 16 17 It means how to use high-level languages ANSWER: and logic reasoning to design circuit architectures or 18 19 computer architectures in a specific, correct manner and have 20 proof techniques to show that the design you made is correct. 21 QUESTION: Have you ever heard of flow control 22 buffer status reporting? 23 ANSWER: Actually, I've heard of that. 24 QUESTION: What is flow control buffer status 25 reporting?

ANSWER: So that's -- yeah. So that rings a bell now. So there's a way of controlling the thermal dissipation of the -- of the modem that the Qualcomm chipset provides, and it's used in our devices to avoid overheating.

And one way -- or one of the ways to accomplish that is to throttle the throughput in the uplink or the downlink. And that -- in that regard, you control the uplink or downlink flow. And you could accomplish that through using buffer status reports.

QUESTION: So how does -- how does flow control BSR affect thermal dissipation?

ANSWER: So, if you control the uplink flow to send fewer data, fewer payload data, then there's less computation to be done in the uplink; and, therefore, there's also less uplink activity on the power amplifier, which in turn leads to a lower dissipated heat in the electric device, electronic devices.

QUESTION: Well, why is it important to seek a lower dissipated heat?

ANSWER: Well, from a user's perspective, if you want to -- well, or -- well, just in general, you don't want the device to exceed a certain temperature at the outside skin of the device.

And that's one -- one reason. So you want to control that. And the baseband is one contributor of many

that's taken into consideration. 1 Another reason is that the circuitry might exceed 2 3 their operating temperature range, and you want to control that to avoid an uncontrolled shutdown of the device. 4 5 (End of video clip.) MR. NELSON: And, lastly, Your Honor, there's 6 7 Mr. Vijay Ramamurthi. He's a software engineer at Apple who works on LTE. 8 9 (Video clip playing.) 10 QUESTION: Good morning. 11 ANSWER: Good morning. 12 QUESTION: Will you please state your name for the 13 record? 14 ANSWER: My name is Vijay Kumar Ramamurthi. 15 QUESTION: Question, what documents did you review in preparation for today? 16 17 I did -- apart from the context of the ANSWER: 18 litigation, I did go through the specification, MAC 19 specification. 20 QUESTION: What specification? 21 The MAC specification. ANSWER: 22 QUESTION: What's the MAC specification? 23 ANSWER: LTE 36.321. 24 QUESTION: Okay. We'll get to that later. But I 25 assume you're referring to the LTE standard specification?

1 That is correct. ANSWER: QUESTION: It sounds like you looked at documents 2 3 other than the MAC specification. I want to know what those 4 documents are. 5 Okay. I looked at the patent application. ANSWER: 6 QUESTION: The patent application? 7 ANSWER: Yeah. QUESTION: Based on what you read, what do you know 8 9 about the patent? 10 ANSWER: Again -- again, the -- the patent 11 document is -- is a legal document, first of all. So I do not really understand much of it. You know, it's a lot of 12 13 legal jargon in there. And I was just going through -- you know, just 14 15 glancing through what the patent was so that -- that -- you know, so I have some understanding of the patent. 16 17 QUESTION: So you didn't really read the patent in 18 detail; you just glanced at it? 19 ANSWER: That would be a correct statement, yes. 20 QUESTION: You just glanced at it. 21 ANSWER: Yeah. QUESTION: For a minute? Two minutes? 22 23 ANSWER: Maybe five to ten minutes. QUESTION: Five -- just -- okay. Just glanced at 24 25 it for five to ten minutes?

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1	ANSWER: Yes.
2	QUESTION: Did you look at any other documents in
3	preparation for today?
4	ANSWER: Yes. I did mention that I did look at the
5	LTE specification document.
6	QUESTION: You work for Apple.
7	ANSWER: Yes.
8	QUESTION: How long have you worked for Apple?
9	ANSWER: I started working there in August 2014.
10	QUESTION: 2014?
11	ANSWER: Yes.
12	QUESTION: What's your current job title?
13	ANSWER: Senior software engineer.
14	QUESTION: Do you have any people that report to
15	you?
16	ANSWER: No.
17	QUESTION: When you started in 2014, what was your
18	job title?
19	ANSWER: It was the same job title.
20	QUESTION: What would you say are your main
21	responsibilities at Apple?
22	ANSWER: My job is to I work on the LTE system,
23	and I troubleshoot and, you know, fix bugs, if any, in the
24	LTE system.
25	QUESTION: Do you know anything about CCE, or

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Cellular Communications Equipment, also the Plaintiff in this
case?
         ANSWER: No, I do not.
          QUESTION: I'm just asking you, like, what day or
year or whatever did you first learn about this patent?
          ANSWER:
                   The first time was regarding this
litigation sometime, and I don't remember the exact date.
          QUESTION: So ballpark, within the last week?
                  Maybe -- maybe a few weeks.
          ANSWER:
          QUESTION: Do you wish you would have known about
the '820 patent earlier than just a few weeks ago?
          ANSWER: No.
          (End of video clip.)
         MR. HILL: Your Honor, before we call our next
witness, there's one matter we'll need to take up with the
Court.
          THE COURT: All right.
          (Bench conference.)
          MR. HILL: Your Honor, I wanted to approach
regarding a potential limine issue that's going to come up
with Ms. Mewes, who will be our next witness. She's an Apple
in-house lawyer.
          The issue, Your Honor, is Apple has made a
concerted effort to put Ericsson as a central figure in this
case by pursuing a defense that depends largely on
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discrediting the inventor and suggesting to the jury that an Ericsson witness would come in this courtroom and explain that Mr. Sebire was not the sole inventor on the '820 or that others made contributions -- their derivation defense, if you will.

By doing so, Your Honor, they have put plainly at issue the relationship between Apple and Ericsson because it goes to the credibility of the Ericsson witness and the bias that that witness may have because of the relationship between Apple and Ericsson.

So as part of my questioning of Ms. Mewes, who has testified in her deposition and has personal knowledge of that relationship, I would like to ask about the relationship, about the fact that there is a license agreement between the two, that it was entered in December of 2015, and the terms of that license agreement generally.

I don't plan to try to admit the document. I don't plan to put the document in front of the jury. I plan to simply expose the extent of Apple's relationship with Ericsson because it is directly relevant to the bias and to the credibility of both Apple's story and of the testimony we're going to hear from an Ericsson witness soon, Magnus Stattin.

Ms. Mewes will be the only Apple representative who will have personal knowledge of the license agreement through

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whom I can make these points. And so I would ask leave of the Court to do that and make sure I'm clear of any limine issues before I do so. THE COURT: Response. MR. LUMISH: Do you need to do it in the next 15 minutes, or could we take this up in the morning after I have a chance to look at the deposition testimony? Because this is catching me a little bit by surprise. MR. HILL: Your Honor, I would prefer to put my witness on and keep our trial moving. MR. LUMISH: No, no. I mean, do you need to ask those questions, though, in the first 15 minutes? It's the first part of my -- of my MR. HILL: issues, Your Honor. I may not get fully through them today. THE COURT: Then -- then we'll let the jury go for I've got a few issues I need to take up with y'all the day. And we'll start with her first thing in the morning, anyway. and we'll take up this issue. MR. LUMISH: Thank you, Your Honor. THE COURT: All right. MR. LUMISH: Appreciate that very much. MR. HILL: Thank you. (Bench conference concluded.) THE COURT: Ladies and Gentlemen of the Jury, you have put in a long, hard day. I've been watching you pay

attention. I appreciate it. And the parties do, too. Your reward, we're going to stop 15 minutes early today. You've earned it.

So I'll see you in the morning at 9:00 a.m. Do not discuss the case with anyone. Talk about whatever else is going on in your day but not this case, all right? We'll see you tomorrow.

COURT SECURITY OFFICER: All rise.

(Jury out.)

THE COURT: Please be seated.

All right. We'll take up the next witness in the morning. I'll encourage y'all to continue to meet and confer on that issue.

MR. HILL: Your Honor, I'm -- I'm happy to meet and confer and deal with it in the morning. The reason I raise it today, too -- or would like to raise it today, is just to have some certainty so when I come in in the morning I know which direction I have to go, so to speak.

So to the extent the Court can give me guidance about whether that topic will be allowed to be explored, I would appreciate it. But if you can't, and I need to do it in the morning, I certainly respect that, too.

THE COURT: I would like to hear a response before

I make a ruling. So I'm going to -- I'm going to give

Mr. Lumish the time he needs to look back over the testimony

and give me an adequate response.

MR. HILL: And we'll certainly -- I'm certainly willing to discuss it with him as well so that they understand the extent of what I'm planning so that if we can do it by agreement we can do it.

THE COURT: Very good.

MR. LUMISH: That's all I ask for. Thank you, Your Honor.

THE COURT: Okay. All right. Before I let you all go -- we're early so I didn't develop your trial times.

I'll -- sorry, you're going to have to wait until in the morning for those.

But the Court has received your joint proposed jury instructions. Thank you for submitting those in in joint form. In the e-mail it said we're going to continue and meet and confer and see if we can narrow down some of these disputes.

As you know, the Court takes the charge very seriously, and it is a heavy work burden -- workload for the Court to get it done and in final form.

What I don't want to do is spend our late night tonight and through the weekend getting this thing whittled down to find out on Monday you-all have worked out a bunch of these disputes.

Have you had a meaningful meet-and-confer about the

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Would more time be beneficial? Can you look at it charge? tonight and give me an updated version in the morning? I'm just trying to --MR. HILL: Yes, Your Honor, we can look at it tonight. And we will give you an updated version in the morning. MR. LUMISH: Agreed. Absolutely. THE COURT: Okay. All right. Then just to give you an idea of tomorrow, we will go until noon and we will recess until Monday morning, okay? Is there anything further the Court can help you with? MR. LUMISH: Not from Defendants, Your Honor. THE COURT: All right. We'll be in recess until tomorrow morning. COURT SECURITY OFFICER: All rise. (Court adjourned.)

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1	<u>CERTIFICATION</u>
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3	IT IS HEREBY CERTIFIED that the foregoing is a
4	true and correct transcript from the stenographic notes of
5	the proceedings in the above-entitled matter to the best of
6	our abilities.
7	
8	/s/
9	CHRISTINE BICKHAM, CRR, RMR September 8, 2016 Official Court Reporter
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12	/s/ SHEA SLOAN, CSR, RPR
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